Development of Goals and Objectives to Define Alternatives

Advisory Committee
September 20, 2005
Holtville, California

Outline for Discussion

- **Process used to develop goals and objectives to define range of Alternatives**
- **Consideration of goals and objectives to define range of Alternatives**

Major Components of Restoration Plan

- **Habitat Management - primary purpose**
- **Water Quality Management**
- **Air Quality Management**

Legislation requires that these components be addressed in the Restoration Plan

Many Different Objectives will Define the Alternatives

- **Range of Habitat**
- **Range of Open Sea Salinity**
- **Range of Elevation**
- **Range of Air Quality Management**
- **Institutional Issues**
- **Range of Treatment Levels**
- **Construction Issues**

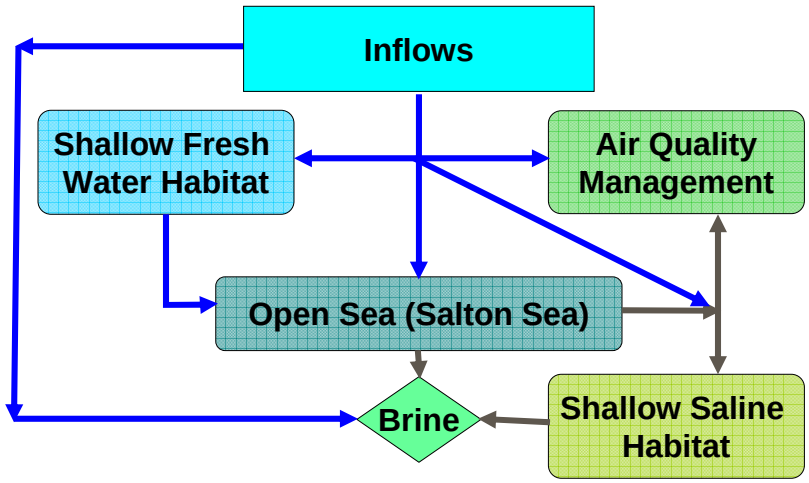
Key Objectives will Drive Configurations of Alternatives

- **Inflows**
- **Habitat provided by Open Sea**
  - Salinity
  - Elevation
- **Locations of Shallow Saline and Fresh Water Habitats**
- **Portion of Inflows that would require Water Treatment**
- **Portion of Exposed Playa that would require Air Quality Management**

Inflow Objectives Based on Discussion at Previous Advisory Committee Meeting

- **Range of Average Annual Inflows**
  - Maximum of 950,000 acre-feet/year over 75 years
  - Minimum of 600,000 acre-feet/year over 75 years
- **Monthly model will reflect a wider range of both annual and monthly flows**

Criteria for each Factor Results in Trade-offs in Water Use



Water is reused to maximize benefits

Habitat Objective: Salinity Goal for Open Sea

- **Legislation requires plan with stable habitat**
- **Existing Salinity: 44,000 - 48,000 mg/L**
- **Proposal for Discussion:**
  - Goal: Support sustainable marine fish populations
  - Objective:
    - Marine/Ocean Salinity: 30,000 - 40,000 mg/L
    - Similar to salinity from 1940s to 1980s
- **Alternate Goal:**
  - Support lower marine water fishery
    - Salinity: 20,000 - 30,000 mg/L
    - Similar to salinity in 1930s
    - May not support some species and may cause eco-risk

Habitat Objective: Elevation Goal for Open Sea

- **Legislation requires stable shoreline habitat**
- **Existing Elevation: - 228 feet MSL**
- **Proposal for Discussion:**
  - Goal: -235 feet MSL
    - 0.5 to 1.0 mile from existing shoreline
    - Similar to conditions in late 1950s to mid-1960s
- **Alternate Goals:**
  - Goal: -230 feet MSL
    - 0 to 0.25 miles from existing shoreline
    - Similar to conditions in late 1970s
  - Goal: -240 feet MSL
    - 0.5 to 1.5 miles from existing shoreline
    - Similar to conditions from 1940 to mid-1950s

Habitat Objective: Shallow Saline and Fresh Water Habitat Goals within Sea-bed

- **Being considered by Habitat Working Group**
  - Potential locations within Sea-bed
  - Integration of both Saline and Fresh Water Habitat within Sea-bed
  - Integration with adjacent land uses
- **Results will be discussed at November 1, 2005 Advisory Committee**

To what Extent should Local Land Use Planning Influence Habitat Objectives?

- **Land use projections based on General Plans**
- **Proposal for Discussion:**
  - Integrate habitat with areas identified as refuges, parks, and conservation areas from Coachella Valley Multi-species Habitat Conservation Plan
  - Assume that remaining areas will be developed under existing zoning/land use plans
  - Assume that historical In-Sea recreation will re-occur
- **Another Approach:**
  - Assume access or development may be limited to portions of Sea and/or shoreline
    - May protect benefits of restoration actions

Water Treatment to Reduce Eco- and Human Risks

- **Legislation requires protection of water quality**
- **Proposal for Discussion:**
  - Treatment Goals:
    - Selenium Goals
      - Current EPA Standard = 5 micrograms/liter
      - Operating objective considered for some wildlife areas = 2 micrograms/liter
    - Nitrogen, Phosphorous, and Sulfur Compound Goals
      - To be determined to support habitat goals
- **Other Approaches:**
  - Partial or no treatment of flows
  - Assume potential source control measures in watershed

Air Quality Management Goals for Exposed Playa

- **Legislation requires elimination of air quality impacts**
- **Proposal for Discussion:**
  - Goal: Manage all exposed playa to eliminate air quality impacts
    - Use vegetation and/or water to reduce risks
    - Test playa as Sea recedes, if vegetation is not needed, remaining water can be used by habitat
- **Other Approaches:**
  - Assume management with vegetation or water on 50% of exposed playa
  - Include other land uses on exposed playa
    - Cultivated lands, recreational uses, community development, water facilities (such as reservoirs)

Summary of Goals and Objectives

- **Stable Salinity for Open Sea**
  - Goal: To support sustainable marine fish populations
    - Proposed objective = 30,000 to 40,000 mg/L
- **Stable Elevation for Open Sea**
  - Goal: To support stable shoreline habitat
    - Proposed objective = -235 feet Mean Sea Level
- **Habitat in Sea-bed**
  - Goals/objectives being developed with Habitat Working Group
- **Coordination with Local Land Use**
  - Integrate with Current Land Use Plans
  - Assume that historical recreation will re-occur
- **Reduction of Eco- and Human Health Risks**
  - Goal: Establish water quality goals to protect beneficial uses
- **Elimination of Air Quality Impacts**
  - Manage exposed playa to avoid air quality impacts